

NTSB Order No. EA-4329

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD
at its office in Washington, D.C.
on the 23d day of February, 1995

Respondent .

Docket SE-13394

The Administrator has appealed from the oral initial decision issued by Administrative Law Judge William R. Mullins at the conclusion of an evidentiary hearing held in this case on April 5, 1994.¹ In that decision, the law judge upheld a violation of 14 C.F.R. 91.13(a) (careless or reckless operation) based on respondent's failure to lower the landing gear prior to

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his intended landing of a Part 135 flight at Noorvik, Alaska, but dismissed allegations that he violated sections 91.7(b) (failure to discontinue flight upon occurrence of an unairworthy condition) and 135.83(a) (failure to use cockpit checklist) in connection with that incident. The law judge also affirmed an unrelated violation of section 135.267(b)(1) (exceeding 8 hours of flight time in a 24-hour period).

Although the Administrator sought a 150-day suspension of respondent's airline transport pilot certificate for the four charged violations, the law judge waived imposition of any sanction for the two violations he found proved, in light of respondent's apparently timely filing of reports under the Aviation Safety Reporting System.

The Administrator appeals only from the law judge's dismissal of the alleged 91.7(b)² violation. As discussed below, we cannot find fault with the law judge's dismissal of that charge. Accordingly, the Administrator's appeal is denied.

The facts are as follows. On May 7, 1993, respondent served as pilot in command of a Piper PA-31-350 on a flight operated by Larry's Flying Service under 14 C.F.R. Part 135, carrying one passenger and mail. It is undisputed that, in preparation for

² **§ 91.7 Civil aircraft airworthiness.**

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(b) The pilot in command of a civil aircraft is responsible for determining whether that aircraft is in condition for safe flight. The pilot in command shall discontinue the flight when unairworthy mechanical, electrical, or structural conditions occur.

his intended landing on a 2,200-foot gravel runway at an uncontrolled and unattended airport in Noorvik, Alaska, respondent neglected to lower the landing gear. Consequently, the aircraft's propellers, flaps, and antenna, struck and scraped the surface of the runway and were damaged.³ It is undisputed that the aircraft was rendered unairworthy by the damage it sustained and, though no finding was made by the law judge, the record supports a finding that respondent should have known that the aircraft was no longer airworthy.⁴ Respondent did not land at Noorvik, but proceeded to fly an additional 43 statute miles (approximately 15 minutes) entirely over uninhabited tundra and water, to Kotzebue airport, where longer runways (4,000 feet and 6,000 feet) and emergency assistance (in the form of radio contact with air traffic control and a flight service station, and rescue equipment) were available.

Although the Administrator contended at the hearing that respondent should have stopped the aircraft as soon as the damage occurred at Noorvik, the law judge credited respondent's claim that this was not feasible because he had already initiated a go-

³ Testimony and photographs introduced by the Administrator established that both propeller blades were curled as much as 4 inches on each end and were extensively nicked from being dug through the gravel, and that portions of the blade tips were missing. In addition, the belly-mounted antennas were scratched, and the lower surfaces of the flaps had been scraped along the ground and required reskinning and some rib replacement.

⁴ Indeed, respondent's desire to avoid lowering the flaps, and to avoid unnecessary power changes (both factors in his decision to go to Kotzebue rather than attempt another landing at Noorvik) suggests that he knew that the flaps and propellers were potentially badly damaged.

around in response to the gear warning horn before the aircraft struck the ground, and he was too far down the short runway at that point to complete a landing.

Respondent knew his aircraft had contacted the ground, and that there was a possibility he had damaged the propellers, but stated that he was unaware of the full extent of the damage to the propellers until he observed them after landing, uneventfully, at Kotzebue. He testified that he could, however, see that there was some damage to the flaps. The record establishes that the flaps on a PA-31 are especially susceptible to asymmetrical (i.e., uneven) deployment, possibly leading to a loss of control. Respondent testified that, because he felt the damage to his flaps might exacerbate this problem, he decided he should land the aircraft without re-deploying the flaps⁵.

Although the FAA investigating inspector questioned the necessity of a no-flap landing under the circumstances, both he and the Administrator's airworthiness expert acknowledged that extending damaged flaps could indeed cause asymmetry and result in a loss of control, or lead to further damage.⁶

It is undisputed that a zero-flap landing requires more runway length than a landing with full flaps. There are no

⁵ The flaps had been extended during the aborted landing attempt at Noorvik, but respondent apparently retracted them before noticing the damage.

⁶ Indeed, in his closing argument at the hearing and in his brief on appeal, the Administrator appears to concede that respondent's judgment in this regard was correct. (Tr. 303; App. Br. at 15.)

published charts showing how much runway length is required for a zero-flap landing, but the Administrator's and respondent's experts both estimated that such a landing on the runway at Noorvik could require as much as 2,000 feet.⁷ Respondent rejected a no-flap landing on the 2,200-foot runway as unsafe because of the extremely small margin for error. Respondent also rejected a landing on the other runway at Noorvik, which is 2,800 feet,⁸ because his observation of the wind sock (the only source of wind information at Noorvik) indicated that there was a 10-15 knot gusty crosswind on that runway, with the possibility of intermittent quartering tail winds. He put on expert testimony that these wind conditions would have further extended the amount of runway necessary for a no-flap landing, and that the 2,800-foot runway was therefore also unsuitable.⁹

⁷ The Administrator presented evidence in his rebuttal case that this aircraft was capable of completing a no-flap landing on a dry, paved runway within 1,500 to 1,800 feet. However, we think that the 2,000-foot estimates given by experts on both sides of this case are a better indication of what respondent would reasonably have believed he would need for a no-flap landing at Noorvik.

⁸ Although there are 200-foot overruns (also called safety areas) at each end of the runways, respondent indicated that they could not safely be used as part of the actual runway in this type of situation because of the risk of hitting runway lights located on the line dividing the runway from the safety area. The Administrator's witnesses maintained that the safety areas could be used, but did not comment on the runway lights. Even assuming the 200-foot overrun could have been used as part of respondent's landing roll in this case, we would still find the margin for error to be too small to second-guess respondent's decision to forego an attempted landing at Noorvik.

⁹ The FAA's investigating inspector claimed that respondent never mentioned wind as a factor in his decision not to land at Noorvik and, therefore, evaluated respondent's actions on the

Respondent indicated that his decision to continue on to Kotzebue airport rather than to land the damaged aircraft at Noorvik was primarily based on his judgment that the 2,200-foot runway favored by the wind, and the 2,800-foot runway subject to a crosswind, were both too short to accommodate a zero-flap landing. He emphasized that, despite the ground strike, all his instruments were registering normally, and the aircraft felt stable. The law judge specifically credited respondent's testimony that he felt no vibrations in the aircraft.¹⁰ Respondent also cited the runway conditions (gravel with potential soft spots, and with berms of accumulated plowed snow at either end of the runway), which he felt could further hamper a no-flap landing, and the fact that Noorvik lacked any rescue equipment, or human assistance of any kind.

Finally, respondent pointed out that, because the airport at Noorvik is unfenced and people and animals often enter the runway, there was a higher possibility of another aborted landing (and associated power changes) at Noorvik than there would have been at a controlled airport such as Kotzebue. In this regard,

(..continued)
assumption that there was no wind at the time. Based on this assumption, he opined that the safest course of action would have been for respondent to have landed on the longer runway at Noorvik. However, he also acknowledged that adverse winds could preclude using that runway. (Tr. 83.) The law judge credited respondent's testimony as to the actual airport conditions at Noorvik on the day in question (including winds), noting that the FAA had produced no contradictory information.

¹⁰ Although the Administrator's airworthiness expert opined that the damaged propellers were unbalanced, and therefore would have produced some vibration, no tests were conducted to verify this.

respondent and his expert witnesses emphasized that, in light of the unknown extent of the damage to his aircraft, it was important for respondent to minimize the number of maneuvers and power setting changes so as to preserve the stability of the aircraft.

As both parties recognize in their briefs, we have interpreted section 91.7(b) as requiring -- upon the occurrence of an unairworthy condition -- a landing "at the first available point consistent with the safe operation of that aircraft." Administrator v. Genereaux, 4 NTSB 1245, 1247 (1984), (quoting the law judge's initial decision); Administrator v. Halbert, NTSB Order No. EA-3628 at 5 (1992). The law judge concluded that the Administrator failed to prove that Noorvik was a suitable place to land under the circumstances of this case, and held that respondent's decision to fly to Kotzebue, where longer runways and assistance would be available, was proper.

The record establishes that there are substantial risks involved in flying with damaged propellers.¹¹ Nonetheless, in light of the conditions at Noorvik -- particularly the shortness of the runways and the fact that they were enclosed by snow berms, and the crosswind on the longer runway -- and the absence of any vibration in the aircraft or other signs of serious

¹¹ Specifically, bent and nicked areas could be stressed to the point where pieces of the propeller might come off in flight, and the propellers could become unbalanced. The Administrator's witnesses testified that this could result in vibration, performance degradation, engine failure, and further damage, and that this might occur at any time after the damage.

immediate danger, we decline to second-guess respondent's decision to continue on to Kotzebue rather than attempting another landing at Noorvik. Under the circumstances of this case, including the damage sustained by the aircraft (which called for a no-flap landing and a minimum of power changes), respondent could reasonably conclude that a landing at Noorvik would be inconsistent with "the safe operation of the aircraft."

Accordingly, we cannot hold that he was required to land there under section 91.7(b).

Our decision in this case does not represent any retreat from our view, expressed in Halbert, that section 91.7(b) does not allow a pilot to choose the "best point available consistent with the safe operation of the aircraft," but rather requires a landing at the first available location consistent with such operation. In Halbert, we upheld a violation of section 91.7(b) where the respondent bypassed an airport after the occurrence of an unairworthy condition because he felt more confident and comfortable landing at another airport. The respondent in that case also cited factors such as runway length, temperature, and the availability of rescue equipment. However, unlike this case, the record in Halbert indicated that the bypassed airport would indeed have been suitable for a landing without jeopardizing the safe operation of the subject aircraft.

ACCORDINGLY, IT IS ORDERED THAT:

1. The Administrator's appeal is denied; and
2. The initial decision is affirmed.

HALL, Chairman, FRANCIS, Vice Chairman, and HAMMERSCHMIDT, Member of the Board, concurred in the above opinion and order.